

Contemporary Issues Paper

Should the Marine Corps Ban Motorcycles?

Capt JR Beal

Major JK Kelley, CG 1
20 February 2009

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 20 FEB 2009		2. REPORT TYPE		3. DATES COVERED 00-00-2009 to 00-00-2009	
4. TITLE AND SUBTITLE Should the Marine Corps Ban Motorcycles?				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) United States Marine Corps,Command Staff College Marine Corps University,2076 South Street, Marine Corps Combat Development Command,Quantico,VA,22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 12	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

More Marines were killed in fiscal year (FY) 2008 by motorcycles than by insurgent groups in Iraq. Statistically, motorcycles posed a deadlier threat to Marines than did insurgents. To reduce fatalities, the Marine Corps should place a temporary restriction on the use of sport bikes to older, more experienced riders while expanding training and education on motorcycle safety throughout the force.

Fatality rates

According to the Naval Safety Center, the number of motorcycle fatalities in FY 2008 represents a 32 percent increase over FY 2007.¹ This is not a newly emerging trend. The number of motorcycle related fatalities in the Marine Corps has increased annually since 1997.²

The civilian sector has also seen an increase during that time period.³ Although civilian fatalities are on the rise, in 2007 the Marine Corps outpaced the comparable (age and gender mix) population of the civilian sector by 70 percent.⁴ The number of motorcycle related deaths as a percentage of the total vehicular fatalities demonstrates this. The civilian percentage

¹ Naval Safety Center, *Motorcycle mishaps_USN_MC_FY08* (<http://www.safetycenter.navy.mil/ashore/motorvehicle/index.asp>), slide 5.

² Bowes, Michael D. and Catherine M. Hiatt, *An Analysis of USMC Accidental Deaths: 2007 Update* (Alexandria, VA: CNA Analysis & Solutions, 2008), 9.

³ National Highway Traffic Safety Administration (NHTSA), *NHTSA Traffic Safety Facts 2007 Data Motorcycles* (<http://www-nrd.nhtsa.dot.gov/Pubs/810990.PDF>), slide 3.

⁴ Bowes and Hiatt, *2007 Update*, 11.

of motorcycle fatalities climbed from 9 to 13 percent, while the Marine percentage jumped from 14 to 33. Simply stated, Marine motorcycle fatalities are climbing with their civilian counterparts, except at faster rate.

Motorcycle Type

The type of motorcycles involved with the majority of fatalities are indisputably the sport bikes, often referred to as "superbikes" or "supersports." Last year, 22 of the 25 motorcycle fatalities involved sport bikes.⁵ These motorcycles are cheaper, faster, and consequently more popular among younger riders than the cruisers are. According to KelleyBlueBook.com, top-of-the-line sport bikes made by Suzuki, Yamaha, Kawasaki, and Honda have a manufacturers suggested retail price (MSRP) ranging from \$7,000 to \$10,000. They are attainable for any Marine with a pocket full of deployment savings.⁶

That being said, motorcycle manufacturers are in competition for sales. They know that speed sells, and they are currently engaged in a horsepower battle. They produce motorcycles with increasingly more power, while they reduce the weight. In the early 1980s, a "fast" bike like the Kawasaki Z1000 produced around 90 horsepower and weighed nearly 600

⁵ Naval Safety Center, *Motorcycle mishaps*, slide 6.

⁶ KelleyBlueBook.com.

pounds. Today, an equivalent Suzuki GSX-R1000 puts out nearly 200 horsepower and weighs just over 400 pounds with a full tank of gas.

The product of this motorcycle industry shift is the ability of Marines to purchase a class of bikes that they are not capable of safely operating. These motorcycles can accelerate, violently, from 0 to 60 mph in less than 3 seconds.⁷ The increase in performance has outpaced the capabilities of the riders. For this reason, sport bikes should be the focus of the ban and additional training.

Demographics

The numbers of Marine fatalities can be broken down for comparison across several different categories: age, pay grade, and MOS. Useful information can also be gleaned from accident occurrences related to deployment cycle and time of day.

During FY 2008, 75 percent of the Marines killed on motorcycles were between the ages of 19 and 25.⁸ This represents a shift from the 9 year running average of ages 22 to 32 composing the highest risk group.⁹ When compared by pay grade, similar results are evident. In FY 2008, pay grades E-2 to E-4 accounted for 60 percent of the fatalities, with E-3s accounting

⁷ Jonathan Welsh, "Outsize Power And Lighter Weight Coincides With Increase in Fatalities" *Wall Street Journal*, September 18, 2007, Eastern Edition, D-1.

⁸ Ibid., slide 5.

⁹ Bowes and Hiatt, *2007 Update*, 12.

for 32 percent alone.¹⁰ This represents a shift away from the 9 year running average of E-4 to E-6 being the highest at-risk group.¹¹ In short, figures indicate a shift of risk from the mid-level enlisted to the younger junior enlisted.

Comparison of fatalities by MOS reveals significant differences across the spectrum of specialties. Infantry, aviation maintenance & avionics, and motor transport Marines comprise roughly 35 percent of the Marine Corps, yet historically they account for the highest number of fatalities. The fatality rates among aviation maintainers and motor transport subsets are not significantly increasing; however, the rates among infantrymen are on the rise. The fatality rate among infantry motorcyclists jumped from 10 per 100,000 in 2006 to 20 per 100,000 in 2007.¹²

Timing

Post deployment periods are known for increases in risky behaviors. Motorcycles are no exception. Data collected from FY 2003 through FY 2007 indicates that motorcycle fatality rates increase during the three to nine month period after return from deployment. Post-reenlistment fatality rates, however, seem to

¹⁰ Naval Safety Center, *Motorcycle mishaps*, slide 5.

¹¹ Bowes and Hiatt, *2007 Update*, 13.

¹² Bowes and Hiatt, *2007 Update*, 17.

decrease, suggesting that reenlistment bonuses are not linked directly to motorcycle fatalities.¹³

Statistically, most Marine motorcycle accidents occur in the afternoon and evening. This indicates that motorcycle accidents tend to happen during recreational riding, vice commuting to and from work.¹⁴

Corrective Actions

The Marine Corps has mandated motorcycle training for operators for the last eight years. Marine Corps Order 5100.19E, dated 29 December 2000, states

Operators of government or privately owned motorcycles, mopeds, motor scooters, or ATVs must successfully complete a rider or operator course prior to operation on any DoD installation. The training must also be completed by all active duty Marines operating motorcycles whether on or off base.¹⁵

The order specifies nationally certified instructors and curriculum, as well as evaluation criteria to ensure proper training has been completed. Furthermore, this training is at no cost to the individual Marine. In addition to the initial training, the order also stipulates a refresher course every three years.

¹³ Bowes and Hiatt, *2007 Update*, 43.

¹⁴ *Ibid.*, 20-21.

¹⁵ Department of the Navy, MARINE CORPS ORDER 5100.19E W CH 1-3, December 29, 2000 (Washington, D.C.), Enclosure 2, 2.

More recently, ALMAR 014/08 places additional requirements on motorcyclists. Marines are now required to consult their chain of command on the responsibilities of motorcycle ownership prior to purchasing one. A Marine must notify his command within 48 hours after purchasing a motorcycle. The Marine must obtain appropriate registration, then acquire and verify motorcycle endorsement on a valid driver's license. Proper personal protective equipment (PPE) must be obtained and worn as well. Failure to comply is clearly stated as being punishable under the UCMJ.¹⁶

Past and present training and education directives have been increasingly proscriptive. ALMAR 014/08 clearly defines the latest additional requirements, yet seventeen more Marines were killed on motorcycles within seven months after its dissemination. Two root causes exist: blatant disregard for orders and inadequate motorcycle safety training.

The first cause, disregard for orders, is confirmed by the accident reports. Of the twenty-five fatalities in FY 2008, seven did not have a license to operate a motorcycle. Speeding was listed as a causal factor in at least six fatal accidents. Helmets, required PPE for Marine riders, might have saved the

¹⁶ CMC, ALMAR 014/08, April 23, 2008, (Washington, D.C.).

four Marines who chose not to wear one.¹⁷ The simple act of compliance could have saved at least seven lives, possibly more.

The second cause, lack of training, can be resolved by adding to the training curriculum. The Basic Riders Course teaches the fundamentals for safe motorcycle operation under normal riding conditions. Such conditions are at the very low end of the capability of sport bikes. Their "sophisticated suspension and braking systems and other electronics make them easy for inexperienced riders to handle -- up to a point."¹⁸ Marines are taking sport bikes to that point and beyond, and they are paying for it with their lives. They do not have the skills necessary to maintain control of sport bikes. The currently offered Experienced Riders Course builds on the fundamentals taught in the Basic Riders Course; however, it needs to be bolstered. It should be geared toward sport bike handling, basic maintenance requirements, and specific suspension component tuning that is required for individual riders. Such a course would increase riding skills and educate riders about their bikes.

¹⁷ NSC, *Motorcycle mishaps*, slide 6.

¹⁸ Welsh, "Outsize Power", D-1.

Counterargument

An outright ban on all motorcycles would solve the problem of motorcycle related fatalities, without a doubt. The first weakness in that option lies in the inability to enforce it off base. The only guarantee would be that no Marines would die in motorcycle accidents on the way to or from base.

Admittedly, a temporary restriction would be very difficult to enforce. However, most Marines would be much less likely to violate the restriction with a set time table and defined training objectives.

The second shortfall of a complete ban is that motorcycle training would cease altogether. The result would be an increase in the likelihood of unauthorized riders dying due to complete lack of training. If the prospect of broken bones, road rash, and death can not keep a Marine off his bike, then traffic tickets and NJP will have little deterrent value.

Conclusion

Marine motorcycle fatalities are at an unprecedented high. Young Marines are getting killed on machines that they do not have the skills to control. The Marine Corps needs to put an immediate, temporary restriction on sport bikes in order to stop the senseless loss of life. An aggressive supplemental training and education program is a necessary step toward arming Marines

with the skills to handle their motorcycles. Once this has been accomplished, the restriction can be lifted, and Marines can get back on the road armed with the skills they need to survive.

Word count: 1,459

Bibliography

- Bowes, Michael D. and Catherine M. Hiatt. (2008). *An Analysis of USMC Accidental Deaths: 2007 Update* Alexandria, VA: CNA Analysis & Solutions. <http://www.i-mef.usmc.mil/StaffSections/Inspector/safety.asp> (accessed December 15, 2008).
- Conway, General James T. 2008. *ALMAR 014/08*. Washington, D.C.: United States Marine Corps.
- Jones, General James L. 2000. *Marine Corps Order 5100.19E*. Washington, D.C.: Department of the Navy.
- Kelley Blue Book.
<http://www.kbb.com/kbb/Motorcycles/Default.aspx>. (accessed December 14, 2008).
- LaRussa, Tony. 2007. "Motorcyclist Deaths Increase in State." Knight Ridder Tribune Business News, October 9, 2007.
<http://www.proquest.com/> (accessed December 15, 2008).
- National Highway Traffic Safety Administration. *NHTSA Traffic Safety Facts 2006 Data Motorcycles*. <http://www-nrd.nhtsa.dot.gov/Pubs/810806.PDF> (accessed December 15, 2008).
- National Highway Traffic Safety Administration. *NHTSA Traffic Safety Facts 2007 Data Motorcycles*. <http://www-nrd.nhtsa.dot.gov/Pubs/810990.PDF> (accessed December 15, 2008).
- Naval Safety Center. *Motorcycle mishaps_USN_MC_FY08*.
<http://www.safetycenter.navy.mil/ashore/motorvehicle/index.asp> (accessed December 15, 2008).
- Richards, Sarah M. "Sport-bike Fatalities Spur U.S. Military Into Action." The New York Times, October 26, 2008.
<http://www.proquest.com/> (accessed December 15, 2008).
- Shaughnessy, Larry. "Marines' Motorcycles Deadlier Than Iraq." CNN, October 31, 2008.
<http://www.cnn.com/2008/US/10/30/marine.motorcycles/>. (accessed December 12, 2008).

U.S. Department of Transportation. *U.S. Department of Transportation Action Plan to Reduce Motorcycle Fatalities*. <http://www.nhtsa.gov/staticfiles/DOT/NHTSA/Communication%20&%20Consumer%20Information/Articles/Associated%20Files/4640-report2.pdf>. (accessed December 12, 2008).

U.S. Department of Transportation, Office of Public Affairs. *U.S. Secretary of Transportation Mary Peters Announces Historic Drop in Highway Fatalities and Rate*. <http://www.dot.gov/affairs/dot11308.html>. (accessed December 12, 2008).

Welsh, Jonathan. "Outsize Power And Lighter Weight Coincides With Increase in Fatalities." *Wall Street Journal*, September 18, 2007, Eastern Edition. <http://www.proquest.com/> (accessed December 15, 2008).